

## AMENDMENTS TO THE CLAIMS

This listing of is provided for the convenience of the Examiner. No claims are amended, cancelled or added in this response.

1. (Previously Presented) An output driver, comprising:  
a pull-up circuit coupled to a signal terminator device, the pull-up circuit including a pull-up compensation resistive element; and  
a pull-down circuit coupled to the signal termination device, the pull-down circuit including a pull-down compensation resistive element, wherein the pull-up and pull-down compensation resistive elements to provide analog compensation of output driver signal slew rate against device impedance variation, such that a slew rate of a driver output signal is within a predetermined slew rate range.

2. (Previously Presented) The output driver of claim 1, further comprising:  
a pull-up pre-driver to selectively generate pull-up signals to cause a rising signal transition at the driver output pad; and  
a pull-down pre-driver to selectively generate pull-down signals to cause a falling signal transition at the driver output pad.

3. (Original) The output driver of claim 1, wherein the pull-up circuit further comprises:  
a plurality of pull-up devices, each pull-up device coupled between a driver supply voltage and the signal termination device.

4. (Original) The output driver of claim 1, wherein the pull-down circuit further comprises:  
a plurality of pull-down devices, each pull-down device coupled between a driver group and the signal termination device.

5. (Original) The output driver of claim 3, wherein the pull-up devices comprise:

a plurality of PMOS devices having a source coupled to the driver supply voltage, a drain coupled to the signal termination device and a gate to receive a pull-up signal to activate the PMOS device to generate a rising signal transition at the driver output pad and a crowbar current using a falling signal transition at the driver output pad.

6. (Original) The output driver of claim 4, wherein the pull-down devices comprise: a plurality of NMOS devices having a source coupled to the driver supply voltage, a drain coupled to the signal termination device and a gate to receive a pull-down signal to activate the NMOS device to generate a falling signal transition at the driver output pad and a crowbar current using a falling signal transition at the driver output pad.

7. (Original) The output driver of claim 1, wherein the pull-up compensation resistive element is coupled, in series, between a selected pull-up device and the signal termination device.

8. (Original) The output driver of claim 1, wherein the pull-down compensation resistive element is coupled, in series, between a selected pull-down device and the signal termination device.

9. (Original) The output driver of claim 1, wherein the signal termination device comprises:

an Nwell resistive element;

wherein the pull-up compensation resistive element is an Nwell resistor; and

wherein the pull-down compensation resistive element is an Nwell resistor.

10. (Previously Presented) The apparatus of claim 1, wherein the predetermined slew rate range is between 0.4 volts per nanosecond (v/ns) and 1.0 v/ns.

11. (Previously Presented) A system comprising:

a peripheral device; and

a chipset having an output driver circuit to couple the peripheral device with the chipset via an interconnect, the output driver including:

a pull-up circuit coupled to a signal terminator device, the pull-up circuit including a pull-up compensation resistive element; and

a pull-down circuit coupled to the signal termination device, the pull-down circuit including a pull-down compensation resistive element, wherein the pull-up and pull-down compensation resistive elements to provide analog compensation of output driver signal slew rate against device impedance variation, such that a slew rate of a driver output signal is within a predetermined slew rate range.

12. (Original) The system of claim 11, wherein the pull-up circuit further comprises: a plurality of pull-up devices, each pull-up device coupled between a driver supply voltage and the signal termination device.

13. (Original) The system of claim 11, wherein the pull-up circuit further comprises: a plurality of pull-down devices, each pull-up device coupled between a driver group and the signal termination device.

14. (Original) The system of claim 11, wherein the pull-up compensation resistive element is coupled, in series, between a selected pull-down device and the signal termination device, wherein the pull-down compensation resistive element is coupled, in series, between a selected pull-up device and the signal terminal device.

15. (Original) The system of claim 11, wherein the signal termination device comprises:

an Nwell resistive element;

wherein the pull-up compensation resistive element is an Nwell resistor; and

wherein the pull-down compensation resistive element is an Nwell resistor.

16. (Previously Presented) The system of claim 11, further comprising:

a pull-up pre-driver to selectively generate pull-up signals to cause a rising signal transition at the driver output pad; and

a pull-down pre-driver to selectively generate pull-down signals to cause a falling signal transition at the driver output pad.

17. (Previously Presented) The system of claim 11, wherein the predetermined slew rate range is between 0.4 volts per nanosecond (v/ns) and 1.0 v/ns.

18. (Original) The system of claim 11, wherein the chipset comprises an I/O controller hub.

19. (Original) The system of claim 11, wherein the chipset comprises a memory controller.

20. (Original) The system of claim 11, wherein the chipset comprises an integrated driver electronic (IDE) output driver.